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10/561,885	12/20/2005	Takayuki Kimoto	92478-8800	1110

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,885	KIMOTO ET AL.	
	Examiner	Art Unit	
	Jeff Piziali	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/23/09,5/14/09,11/19/08,7/15/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) *11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 July 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings were received on *18 July 2008*. These drawings are acceptable.

Election/Restrictions

3. Applicant's election of ***Invention I and Species 2-B (claims 1-10)*** in the reply filed on *19 November 2008* is acknowledged and appreciated.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

4. ***Claim 11 is withdrawn*** from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on *19 November 2008*.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. *Claims 1-10* are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The terms/variables "***(i),***" "***(ii),***" and "***(iii)***" in claim 1 (*lines 5, 8, 9, 11, 14*) are each a relative term which renders the claim indefinite. Each of the terms/variables "***(i),***" "***(ii),***" and "***(iii)***" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The Applicant is respectfully requested to clarify what the terms/variables "***(i),***" "***(ii),***" and "***(iii)***" are intended to represent.

9. The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon rejected base claims.

10. The claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

As a courtesy to the Applicant, the examiner has attempted to also make rejections over prior art -- based on the examiner's best guess interpretations of the invention that the Applicant is intending to claim.

However, the indefinite nature of the claimed subject matter naturally hinders the Office's ability to search and examine the application.

Any instantly distinguishing features and subject matter that the Applicant considers to be absent from the cited prior art is more than likely a result of the indefinite nature of the claims.

The Applicant is respectfully requested to correct the indefinite nature of the claims, which should going forward result in a more precise search and examination.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. *Claim 1* is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Matsubara et al (JP 2002-152554 A)*** in view of ***Gu et al (US 6,097,853 A)***.

Please note, an English language translation of ***Matsubara et al (JP 2002-152554 A)*** *has been attached to this Office action, and is referred to throughout.*

Regarding claim 1, ***Matsubara*** discloses an image display device [*e.g., Fig. 1: projector 1*]

for receiving a set of image signals [*e.g., Fig. 1: RGB video signals*] that express an image and

displaying the image on a screen [*e.g., Fig. 1: screen 20*], comprising:

a determining unit [*e.g., Fig. 1: microcomputer 10*]

determining a boundary position for dividing the screen vertically [*e.g., Fig. 4B: dotted vertical line*] or horizontally into a first area [*e.g., Fig. 4B: preview/adjusted image area 202*] and a second area [*e.g., Fig. 4B: original/unadjusted image area 201*];

a first display unit [*e.g., Figs. 1, 9, 10: 12-14; Fig. 3: 30, 32*]

(i) based on the boundary position, specifying, from among the set of image signals, a first subset of image signals that express a first partial image [*e.g., Fig. 4B: left-half of the image on screen 20*] to be displayed in the first area,

the first partial image being a part of the image expressed by the set of image signals,

(ii) converting a color attribute [*e.g., Fig. 5: via brightness, contrast, hue, color saturation, sharpness, color temperature settings 52*] of the first subset of image signals to generate a converted first subset of image signals [*e.g., Fig. 3: color converted preview image stored in capture memory 32*], and

(iii) displaying a converted first partial image [*e.g., Fig. 4B: color converted preview image 202*] expressed by the converted first subset of image signals in the first area; and

a second display unit [*e.g., Figs. 1, 9, 10: 12-14; Fig. 3: 30, 31*]

(i) based on the boundary position, specifying, from among the set of image signals, a second subset of image signals that express a second partial image [*e.g., Fig. 4B: right-half of the image on screen 20*] to be displayed in the second area,

the second partial image being another part of the image expressed by the set of image signals, and

(ii) displaying in the second area one of

(a) the second partial image expressed by the second subset of image signals [*e.g., Fig. 4B: original/unadjusted image area 201*] and

(b) a converted second partial image [*e.g., Fig. 4B: original/unadjusted image area 201 will be color corrected if the user confirms/accepts/okays the previewed changes*] expressed by a

converted second subset of image signals generated by converting a color attribute of the second subset of image signals (*see the entire document, including Paragraphs 6-21, 27-29*).

Should it be shown that ***Matsubara*** discloses *determining a boundary position*, as instantly claimed, with insufficient specificity:

Gu discloses a system and methods for creating user definable windows for applying color correction only to selected regions of a displayed image (*see the Abstract*).

Gu mentions in the background of the invention that, "***U.S. Pat. No. 4,782,384 to Tucker et al.*** *describes a video parameter control system operative for selecting a spatial region or window in a video image for correction. A track ball allows selection of a spatial region by dragging a cursor to draw a window around an object of interest in the picture. The operator then adjusts controls that affect only the selected window or region. A first set of correction signals is stored for the selected region, and a separate second set of correction signals is stored for areas of the picture outside the selected region, thereby allowing multiple sets of corrections for a given frame*" (*see Column 2, Lines 6-20*).

Gu continues, "*Image region selecting capability known as the 'Simple Windows' and 'Power Windows' features are extensions of the foregoing* ***Tucker et al.*** *system. These features are provided in the RENAISSANCE 8:8:8™ digital color enhancer system, manufactured by the assignee of the present invention. In the Simple Windows feature, a window is a predetermined regularly shaped area or region of the video image that can be varied in size. The colors within the window are independently adjustable from the colors of the rest of the image. Primary or secondary color enhancements can occur both inside and outside a window, and each*

adjustment is independent of the other. The Simple Windows feature entails use of a simple geometric form--a square or rectangle--for a window shape. A Simple window is always rectangular and is defined by four points. Lines defining the window are always straight vertical or horizontal. Furthermore, there are no soft edges, that is, there is a sharp delineation between the inside and outside of the window, which sometimes produces undesirable image effects at the boundaries.

"The more recent 'Power Windows' feature provided more choices of the shape for the window, for example, circular, rectangular, half screen, split in the middle, etc. Windows comprising multiple squares, multiple diamonds (essentially rotated squares), horizontal and vertical bars, circles, ellipses (a warped circle), etc. can be selected by the operator" (see Column 2, Lines 35-67).

Gu discloses an image display device [*e.g., Fig. 1*]

for receiving a set of image signals [*e.g., Fig. 1: RGB video signals*] that express an image and

displaying the image on a screen [*e.g., Fig. 1: 40*], comprising:

a determining unit [*e.g., Fig. 1: 12*]

determining a boundary position for dividing the screen vertically or horizontally into a first area and a second area [*e.g., Fig. 3E: wherein the user defined window 160 may take any shape*];

a first display unit [*e.g., Fig. 3A: 150*]

(i) based on the boundary position, specifying, from among the set of image signals, a first subset of image signals that express a first partial image [*e.g., Fig. 4B: left-half of the image on screen 20*] to be displayed in the first area,

the first partial image being a part of the image expressed by the set of image signals,

(ii) converting a color attribute of the first subset of image signals to generate a converted first subset of image signals, and

(iii) displaying a converted first partial image expressed by the converted first subset of image signals in the first area; and

a second display unit [*e.g., Fig. 3A: 155*]

(i) based on the boundary position, specifying, from among the set of image signals, a second subset of image signals that express a second partial image to be displayed in the second area,

the second partial image being another part of the image expressed by the set of image signals, and

(ii) displaying in the second area one of

(a) the second partial image expressed by the second subset of image signals and

(b) a converted second partial image expressed by a converted second subset of image signals generated by converting a color attribute of the second subset of image signals (*see the entire document, including Figs. 1-5; Column 7, Line 35 - Column 20, Line 2*).

Matsubara and ***Gu*** are analogous art, because they are from the shared inventive field of dividing display screens into divided portions, and selectively color correcting those portions.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Gu's*** user definable window system and techniques with ***Matsubara's*** display device, so as to provide the user with much greater color control and customization over displayed images.

14. *Claims 2 and 8-10* are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Matsubara et al (JP 2002-152554 A)*** and ***Gu et al (US 6,097,853 A)*** as applied to *claim 1* above, and further in view of ***Venable (US 5,861,871 A)***.

Regarding claim 2, the above cited art does not appear to expressly disclose *a table storage subunit*, as instantly claimed.

However, ***Venable*** discloses the first display unit [*e.g., Fig. 3*] includes a table storage subunit [*e.g., Fig. 4: 44*] storing a color conversion table [*e.g., Fig. 4: 47*] which maps a same value or a different value [*e.g., Fig. 4: RGB values*] for each of a plurality of possible pixel values of the first subset of image signals, and

each pixel value of the first subset of image signals is converted to a corresponding pixel value in accordance with the color conversion table (*see the entire document, including Fig. 6A-L; Column 5, Line 5 - Column 9, Line 23*).

Matsubara, ***Gu***, and ***Venable*** are analogous art, because they are from the shared inventive field of selective color correction of displayed images.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Venable's*** color look-up table system and techniques with ***Matsubara's*** display device, so as to provide the user with increased control and access to adaptive color editing.

Regarding claim 8, ***Venable*** discloses a modification unit modifying content of the color conversion table based on a user input showing an instruction for modifying the content of the color conversion table (*see the entire document, including Fig. 6L; Column 9, Line 25 - Column 14, Line 4*).

Regarding claim 9, ***Venable*** discloses the modification unit specifies a pixel value to be converted and

the pixel value after conversion based on the user input that includes information for specifying the pixel value to be converted and

the pixel value after conversion, and

updates content of the color conversion table with the two specified pixel values (*see the entire document, including Fig. 6L; Column 9, Line 25 - Column 14, Line 4*).

Regarding claim 10, ***Venable*** discloses the modification unit receives the user input

that includes information showing a position on the screen and

specifies a pixel value of the position shown by the information as the pixel value to be converted (*see the entire document, including Fig. 6L; Column 9, Line 25 - Column 14, Line 4*).

15. *Claims 3 and 4* is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Matsubara et al (JP 2002-152554 A)***, ***Gu et al (US 6,097,853 A)***, and ***Venable (US 5,861,871 A)*** as applied to *claim 2* above, and further in view of ***Mizutani (US 5,739,815 A)***.

Regarding claim 3, the above cited art does not appear to expressly disclose *counting a reception timing*, as instantly claimed.

However, ***Mizutani*** discloses a determining unit [*e.g., Fig. 3*] stores a pixel position pertaining to a boundary position [*e.g., screen area boundary*],

a first display unit specifies pixel values of the first subset of image signals by counting [*e.g., Fig. 4: 41a; Fig. 5: 41b; Fig. 7: 6*] a reception timing of the received set of image signals with reference to the stored pixel position , and

a second display unit specifies pixel values of the second subset of image signals by counting [*e.g., Fig. 4: 41a; Fig. 5: 41b; Fig. 7: 6*] a reception timing of the received set of image signals with reference to the stored pixel position (*see the entire document, including Column 4, Line 18 - Column 6, Line 10*).

Regarding claim 4, ***Matsubara*** discloses the determining unit determines the boundary position based on a user input, and stores the determined boundary position as the pixel position (*see the entire document, including Figs. 3, 9, 10; Paragraphs 6-21, 27-29*).

Moreover, ***Gu*** discloses the determining unit determines the boundary position based on a user input, and stores the determined boundary position as the pixel position (*see the entire document, including Figs. 1-5; Column 7, Line 35 - Column 20, Line 2*).

Matsubara, ***Gu***, ***Venable***, and ***Matsubara*** are analogous art, because they are from the shared inventive field of dividing color images into a multiplicity of different controllable areas.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Matsubara's*** counting system and techniques with ***Matsubara's*** display device, so as to divide the display screen into plural areas without the need for an application program to perform polling.

16. *Claims 5-7* are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Matsubara et al (JP 2002-152554 A)***, ***Gu et al (US 6,097,853 A)***, ***Venable (US 5,861,871 A)***, and ***Mizutani (US 5,739,815 A)*** as applied to *claim 4* above, and further in view of ***Morimoto et al (US 2004/0101206 A1)***.

Regarding claim 5, the above cited art does not appear to expressly disclose *information being included in the first area*, as instantly claimed.

However, ***Morimoto*** discloses a determining unit [*e.g., Fig. 1*] receives user input [*e.g., Fig. 1: 61-64*],

which is information [*e.g., Fig. 3: G2*] showing a position on a screen [*e.g., Fig. 3: W1*], and

determines a boundary position [*e.g., Fig. 3: W2*] so that the position shown by the information is included in a first area [*e.g., Fig. 3: W3*] separate from a second image area [*e.g., Fig. 3: G1*] (*see the entire document, including Paragraphs 29-54*).

Matsubara, ***Gu***, ***Venable***, ***Matsubara***, and ***Morimoto*** are analogous art, because they are from the shared inventive field of dividing color images into a multiplicity of different controllable areas.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Morimoto's*** previewing windowing system and methods with ***Matsubara's*** display device, so as to limit memory usage when performing image processing.

Regarding claim 6, ***Gu*** discloses the determining unit receives the user input,

which is information showing a position on the screen, and

determines the position shown by the information to be the boundary position (*see the entire document, including Figs. 1-5; Column 7, Line 35 - Column 20, Line 2*).

Regarding claim 7, ***Morimoto*** discloses the determining unit receives the user input,

which is information showing a position on the screen, and

determines a position separated a given number of pixels [*e.g., Fig. 3: based on pop-up window size*] from a pixel position pertaining to the position shown by the information to be the boundary position (*see the entire document, including Figs. 3-4; Paragraphs 29-54*).

Response to Arguments

17. Applicant's arguments filed on *15 July 2008* have been fully considered but they are not persuasive.

Applicant's arguments with respect to *claims 1-10* have been considered but are moot in view of the new ground(s) of rejection.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/
Primary Examiner, Art Unit 2629
5 April 2010